



Ori and the Blind Forest

Sonic Polish Through Distributed Development

Gareth Coker, Andrew Lackey

Gareth Coker Music
Wabi Sabi Sound

Small Global Team: Big Results



Who are we?

Wabi Sabi Sound (2008 – present)

- Full integrated audio team.
 - The Witness, Ori and the Blind Forest
- Contract with most major studios
 - Destiny: The Taken King, Dead Space 1,2,3, Bioshock 2, Call of Duty MW3

[COMPLETE CREDITS](#)

[COMPLETE BIOGRAPHY](#)

Who are we?

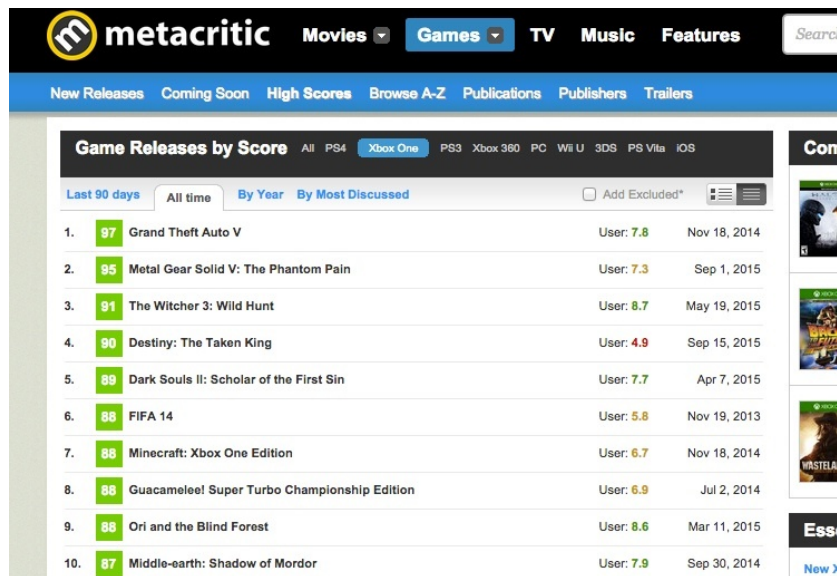
Gareth Coker Music (2010 – present)

- Music for games, films, advertising.
 - Ori and the Blind Forest, Minecraft (Greek Mythology expansion), ARK : Survival Evolved
 - Music placed in over 150 movie/game trailers.

[COMPLETE CREDITS](#)

Why give this talk?

- Something special happened.



The screenshot shows the Metacritic website's 'Game Releases by Score' page for Xbox One. The page lists the top 10 games, each with a Metacritic score (in a green box), a user score (in a yellow box), and a release date. The games are: 1. Grand Theft Auto V (97, 7.8, Nov 18, 2014), 2. Metal Gear Solid V: The Phantom Pain (95, 7.3, Sep 1, 2015), 3. The Witcher 3: Wild Hunt (91, 8.7, May 19, 2015), 4. Destiny: The Taken King (90, 4.9, Sep 15, 2015), 5. Dark Souls II: Scholar of the First Sin (89, 7.7, Apr 7, 2015), 6. FIFA 14 (88, 5.8, Nov 19, 2013), 7. Minecraft: Xbox One Edition (88, 6.7, Nov 18, 2014), 8. Guacamelee! Super Turbo Championship Edition (88, 6.9, Jul 2, 2014), 9. Ori and the Blind Forest (88, 8.6, Mar 11, 2015), and 10. Middle-earth: Shadow of Mordor (87, 7.9, Sep 30, 2014).

Game Releases by Score			
All PS4 Xbox One PS3 Xbox 360 PC Wii U 3DS PS Vita iOS			
Last 90 days All time By Year By Most Discussed <input type="checkbox"/> Add Excluded*			
1.	97	Grand Theft Auto V	User: 7.8 Nov 18, 2014
2.	95	Metal Gear Solid V: The Phantom Pain	User: 7.3 Sep 1, 2015
3.	91	The Witcher 3: Wild Hunt	User: 8.7 May 19, 2015
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10.	87	Middle-earth: Shadow of Mordor	User: 7.9 Sep 30, 2014

Only a handful of projects become greater than the sum of their parts.

Why give this talk?

- It happened in a unique and impossible way



- 20 people
- 8 countries



Meeting up for the 1st time... at launch!



Nope... never met most of these people



Why give this talk?

- We learned a lot
 - Collaborating in a new distributed development era
 - Channeling a LOT of feedback into valuable inspiration
 - K.I.S.S. Using simplicity and limitations as opportunities
 - Sticking to our guns on what mattered!

What this talk isn't

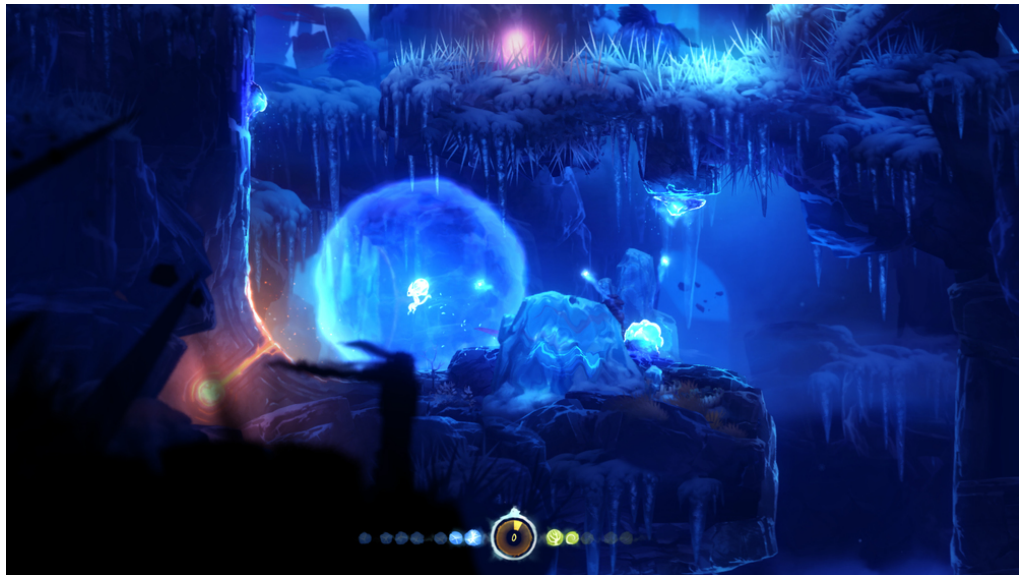
- Sonic polish through... Interactive Music
 - (there is none..!)
- Sonic polish through... Awesome Third party tools
 - Nope. Unity 4 stock audio engine!
- Presenting a catch-all solution
 - Focusing on single player narrative experience.

AGENDA

1. Culture
2. Sound Case Study
3. Music Case Study
4. Q & A

CULTURE - FOCUS

- What we're making.



A beautiful and tight
Metroidvania
platformer.

CULTURE - FOCUS

- Why we're making it.



For hardcore fans of classic 2D platformers.

CULTURE - FOCUS

- How we're making it.



Not so much, more like a voyage of discovery.

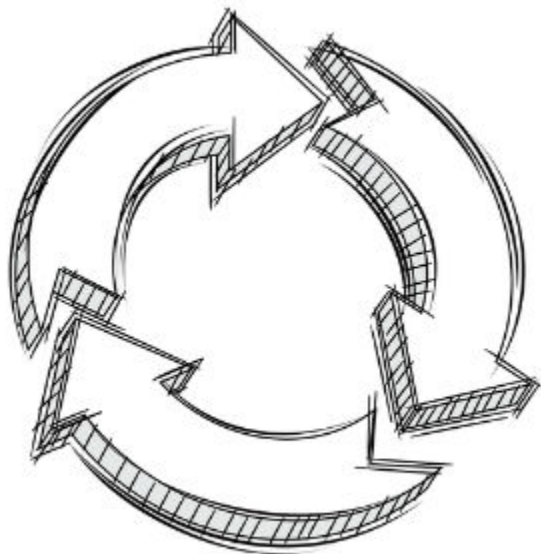
CULTURE - OWNERSHIP

- Flat Organization

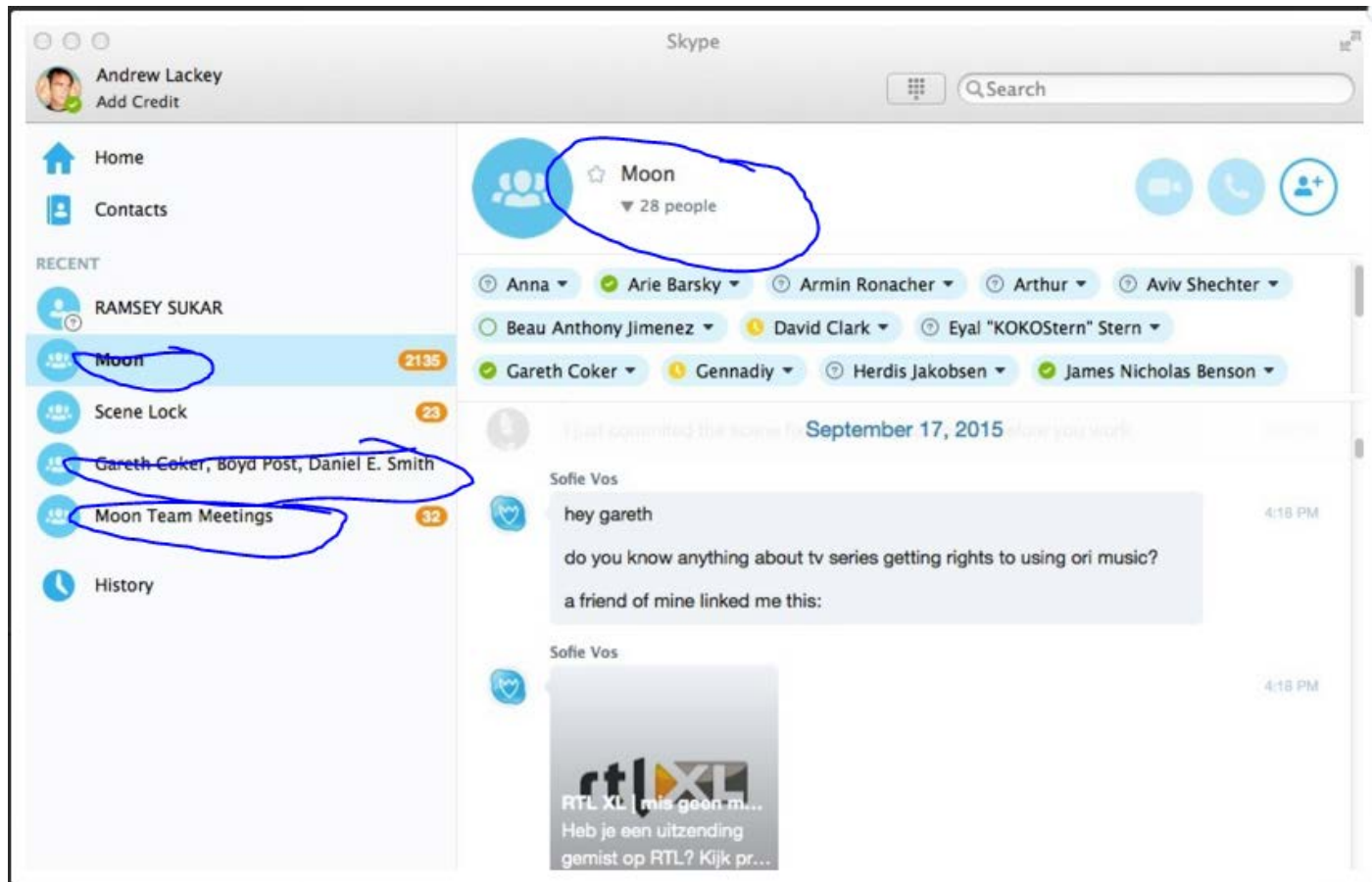
100% Management / 0% Management

Nobody / Everybody

CULTURE - OWNERSHIP



- Everything reviewed by everybody.



CULTURE – Making It Work

- Hire well.
 - Competent
 - Talented
 - Bull Dog Mentality
 - Self-motivated (VERY IMPORTANT)
 - Thick Skin
 - Empathy
 - Agile

CULTURE – Making It Work

- Empathic Listening
 - Sure, WHAT someone says is important.
 - But, Understanding WHY is the key to progress
 - Everyone's opinion is gold, and are valued.
 - Get to the heart of issues.
 - Makes people feel comfortable and encouraged to participate making something better..

CULTURE – “Issues” protocol

- Anatomy of an issue.

The Offended(s) This thing sucks!

The Offender(s) No way, it's awesome

The Moderates I think it could be more like _____
I think it could be less like _____

The No-Opinions

DOES NOT GET RESOLVED until (in priority order).

1. Everyone is happy. 2. Offended gives up. 3. We run out of time.

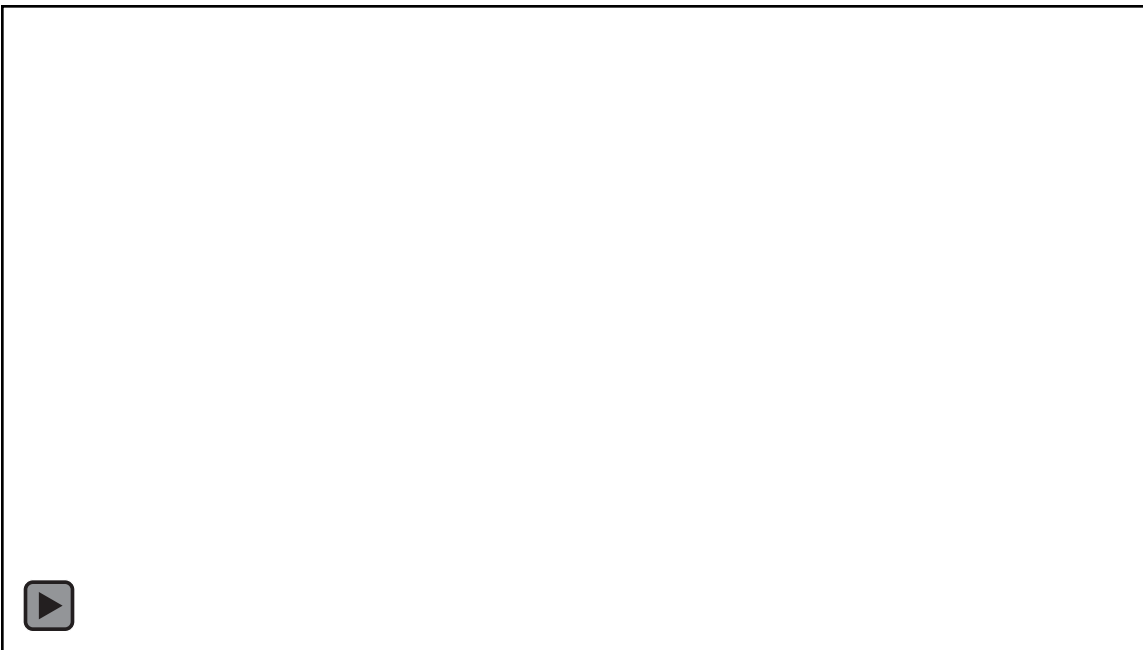
CULTURE – “Issues” resources

- Motivator is the game’s success, nothing else
- The team organically elevates/prioritizes issues
- It’s very punk rock

SOUND CASE STUDY 1

- Language
 - English vs 'universal' language.
 - Big debate, and examples needed to be made of both to get to a decision.
 - This decision has major impact on the perception of how the player experiences the game.

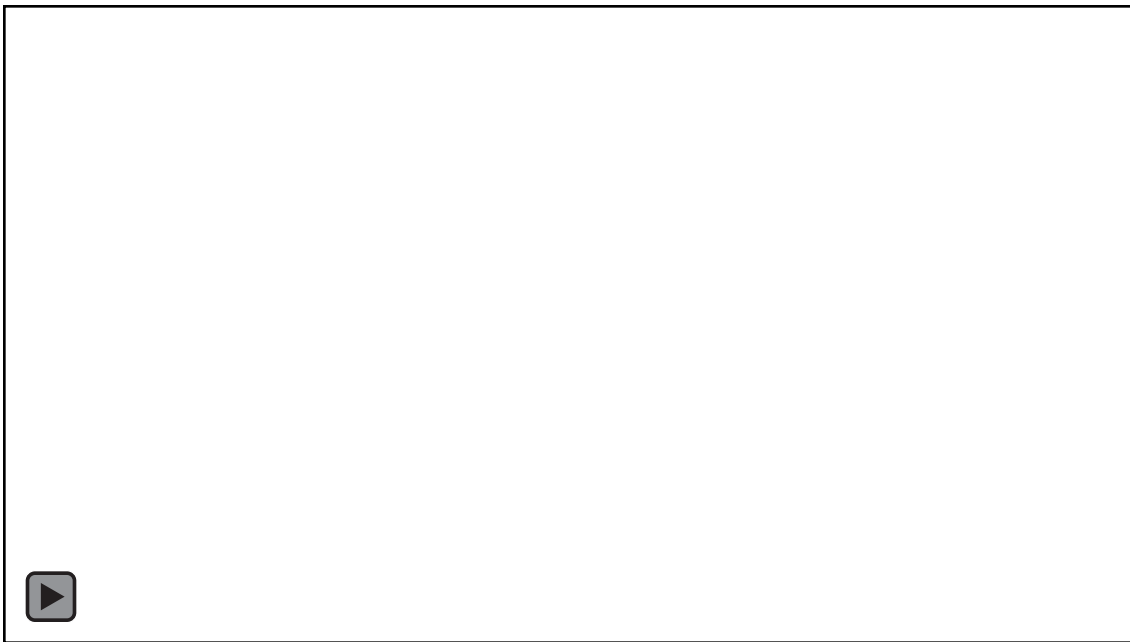
- The English Spirit Tree!



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- The Universal Spirit Tree!



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- Another example of the universal language.



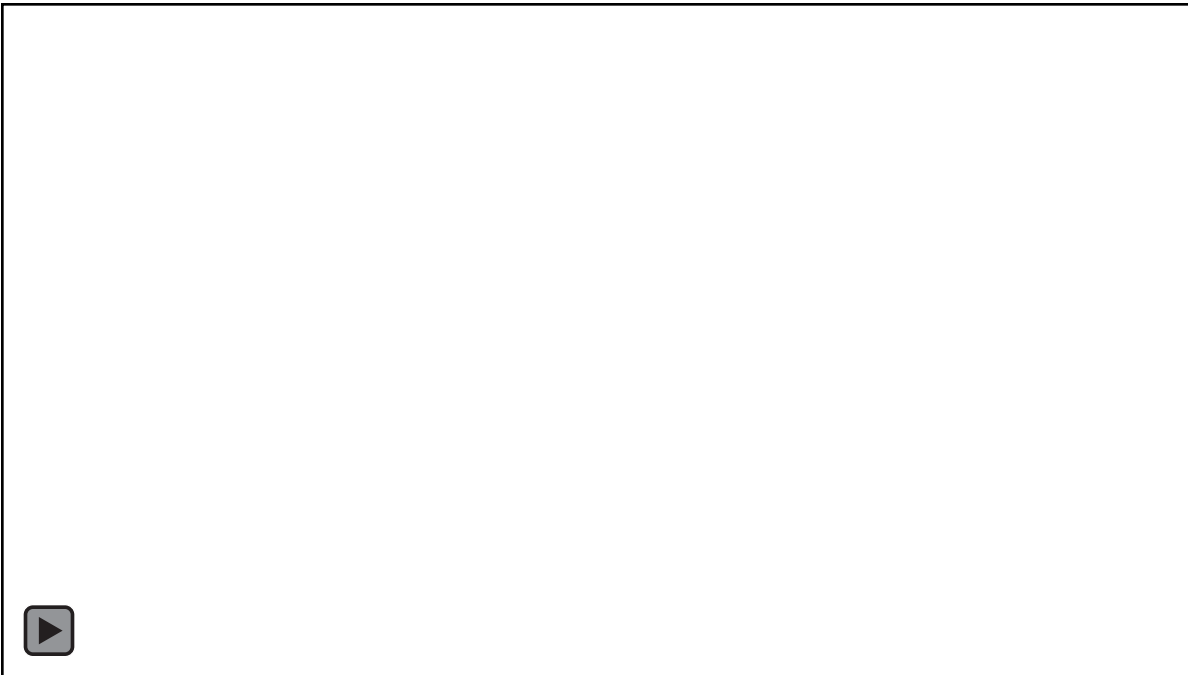
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SOUND CASE STUDY 2

- How to score a scene.
 - “Hide and Seek” game sequence
 - Sound Designer & Composer vs. Director!
 - We wanted sound heavy approach
 - Director wanted music heavy approach

- Kuro Hide and Seek – 2 music choices video.



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SOUND CASE STUDY SUMMARY

- Team Effort

Lead in the principles of what the sound experience should be, but encourage Feedback from anybody who cares to give it.

- Sonic Polish is about vision, feedback and iteration

For more detail on Ori's sound design, read [Making the Magical Sound of Ori And The Blind Forest](#)

MUSIC CASE STUDY

- Constant back and forth, EARLY

STYLE

INTERACTIVITY

PALETTE.

INTERACTIVITY

"The interactive soundtrack matches perfectly with the gameplay."

"Ori and the Blind Forest has a wonderfully immersive soundtrack that always feels like it reacts to what you're doing."

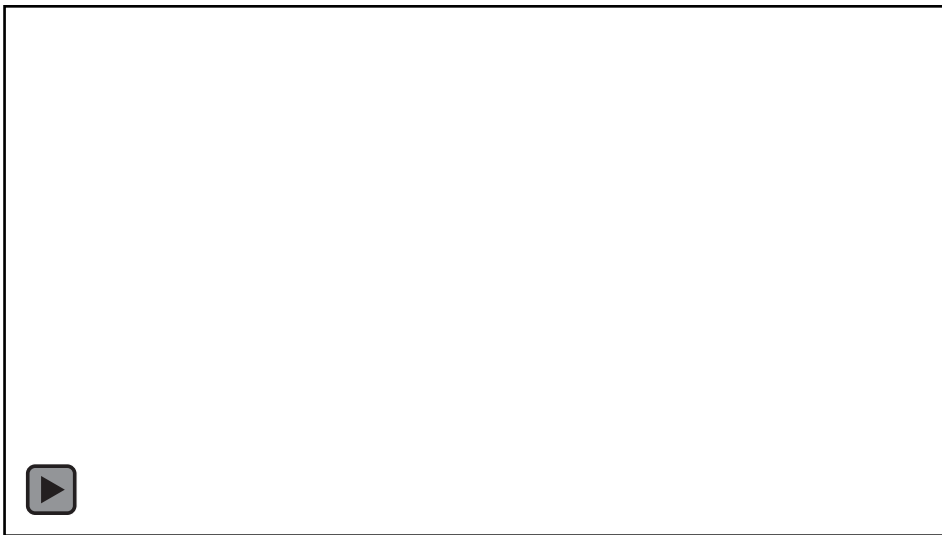
"Coker has crafted an impeccable score, always adapting to what's on screen."

INTERACTIVITY

- No layers/stems
- No music system of any sort.
 - For creative and technical reasons
- All 125 cues delivered as stereo mixes.
- Score creates the illusion of being 'interactive' / 'reactive' with very elaborate and relentlessly tested trigger points.

INTERACTIVITY - EXAMPLE

What we DIDN'T do.



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INTERACTIVITY

Through process of discovery

- Battle music felt gimmicky
- Playing battle music encourages the player to fight. In Ori, you can get through about 90% of the game without killing anything.
- As a result, battle music only plays in a scene where you have to kill something, and these are usually mini-boss fights.

STYLE

- Generally avoiding percussion. Percussion supplied through Ori's sounds.
- Macro/Micro
Music takes a big picture view, while sound draws you in closer to the character's point of view.
- TESTING. The above was discovered early on, which made the writing process in crunch time MUCH faster. Always looping in team feedback.

STYLE – Music & Sound Synergy 1



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STYLE – Music & Sound Synergy 2



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STYLE - Palette

- Ori is a platformer. Ori emphasises constant movement/flow.
How to create momentum in music without using percussion?
- Extensive use of pulses, but trying to avoid cheap and generic pulses (i..e not string patterns, cheesy synth riffs)
- Pulses provide the momentum (and sometimes the 'flavor').
Orchestra provides the 'glue'. Pulses are more 'felt', less 'heard'.

Pulse mix / Fullmix - 1



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Pulse mix / Fullmix - 2

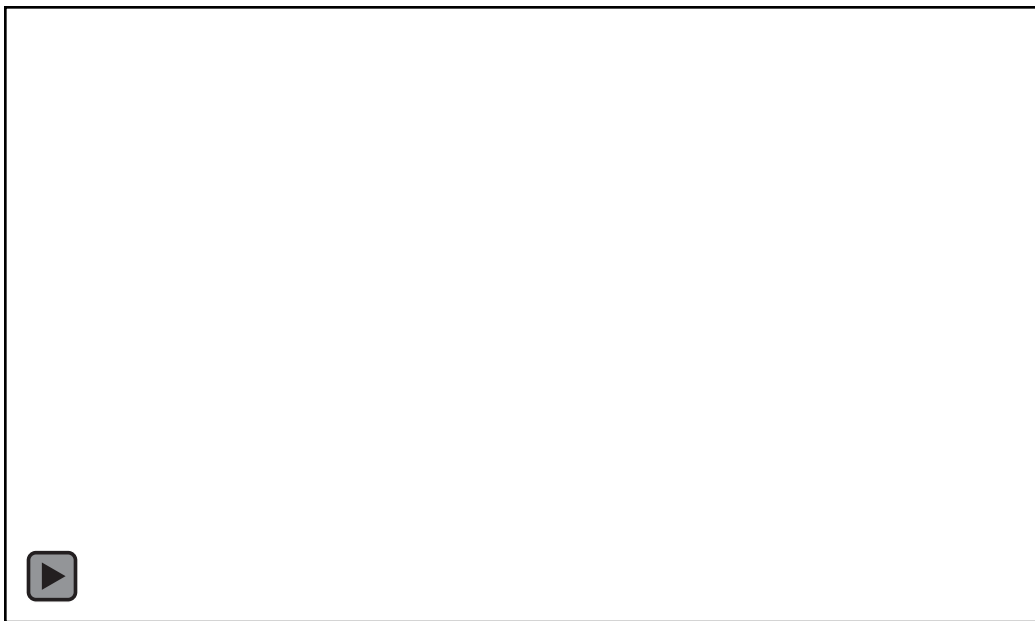


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CUTSCENES

- Storyboards created first.
- Composer brought on early to compose to storyboards. Can artificially extend/shorten length of boards for better music flow.
- Helps define the scene. Constant feedback loops from team.
- Allows for multiple concepts to be tried, and NO TEMP MUSIC (yay!)

CUTSCENES – Approach 1



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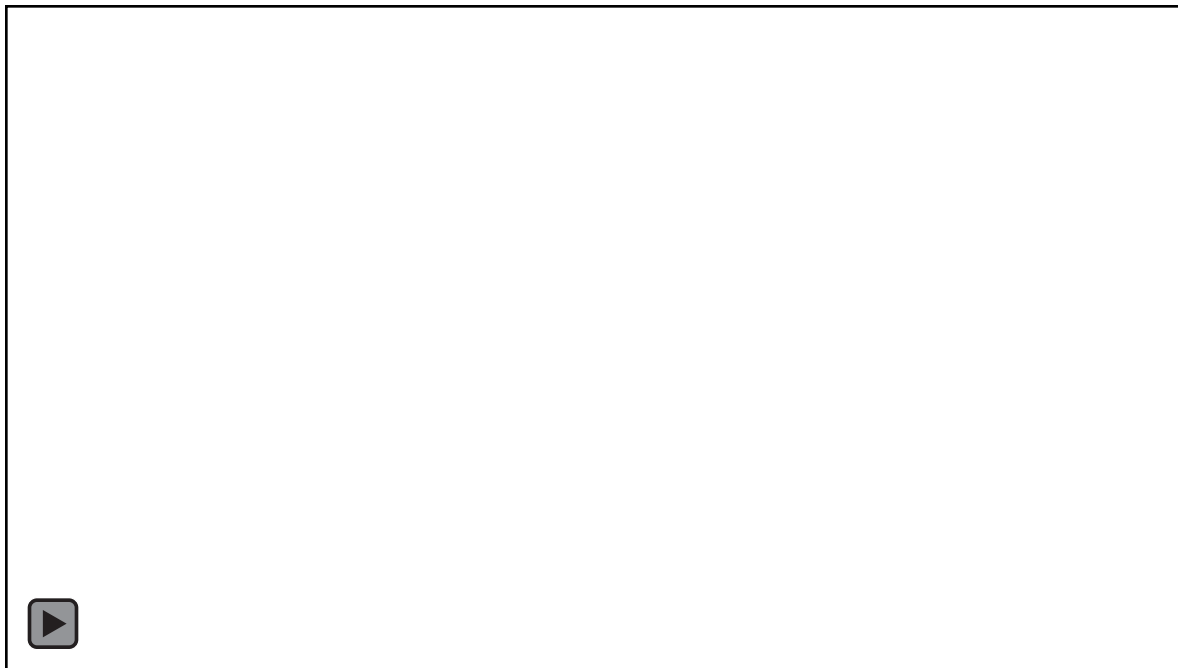
CUTSCENES – Approach 2



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CUTSCENES – Final



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MUSIC – WHAT I LEARNED

- The composer can (and should) be testing for things that regular QA / testing cannot.
 - Audio flow, music from scene to scene.
 - Non-technical testing.
 - Composers should play the game, especially if it's narratively driven.
- If you're going to do a score that is entirely reliant on triggers, it might be "Wwise" to have an engine that measures BPM...
- Getting on board early, helped me, helped the team. If music is likely to form a core part of the player's experience, might be best not to leave it until the end.
- I felt valued. Instead of just delivering a list of music cues/assets based on some artwork , I was delivering a musical experience.

CONCLUSIONS

- Testing and iteration is king. It takes time, but its king.
- Do not underestimate the audio department as a core part of your creative team (as opposed to post-production). We are – or should be - gamers and storytellers first, not just asset creators.
- ALL the feedback is valuable, no matter how much you don't like it!
- Defining what the game 'is' early on, allows everyone to work towards that goal independently. Essential in a flat structure organization. Even more so when working globally.

Q & A

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